

# Are the Wealthy Also Healthy? An Empirical Evaluation of the Financial Health of Chinese Foundations

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Since the enactment of the 2004 Regulations of Management of Foundations, only limited research has focused on the financial health of Chinese foundations. However, given their importance in the nonprofit sector, study of these foundations is essential. This study comprised an empirical evaluation of the financial health of Chinese foundations based on a sample of 2,763 foundations and 10,102 observations. The Tuckman and Chang (1991) model, which measures adequacy of equity, revenue diversification, administrative cost ratio, and operating margin, revealed three major findings: (1) two-thirds of the Chinese foundations were financially unhealthy; (2) from 2008 to 2013, foundations' overall financial health experienced moderate improvement, with public foundations outperforming private foundations; and (3) newer foundations may improve their health more quickly than older foundations. However, because their level of improvement ranged from low to moderate, these financial health scores should be interpreted conservatively. The decreased number of unhealthy foundations does not mean foundations have improved on all measures. Public foundations did not perform better on all measures than private foundations. In the period mentioned above, newer foundations improved on equity ratio and revenue diversification.

**Keywords:** foundation, nonprofit, financial health, China, RICF

## INTRODUCTION

Over the past decade, China witnessed a rapid development of foundations. The enactment of the 2004 *Regulations of Management of Foundations* (hereafter referred to as *Regulations*) marked a watershed of this organizational form. According to the China Statistical Yearbooks, the number of foundations increased at a pace of 16.5% per year, from 892 in 2004 to 4,117 in 2014.<sup>1</sup> Despite the fact they were only a fraction of the registered nonprofits in China (only 0.68% of the total as of

2014), foundations deserve increasing and continuous attention for a number of reasons. First, foundations are capable of institutionalizing and improving the effectiveness of philanthropic support. Second, when conditions permit, foundations can introduce public awareness, lead social progress, and encourage new social behavior, which may be as worthwhile as their financial output (Hammack & Anheier, 2010). Not only can they “touch” almost everyone’s life in one way or another (Leat, 2016), but they also play an important role in starting and nurturing nonprofit organizations that in turn innovate solutions to social

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<sup>1</sup> See Ma, Wang, Dong, and Li (2017) or Nie, Liu, and Cheng (2016) for a full list of the annual number of foundations. The numbers prior to 2004, however, should be read with caution because they were the foundations that survived the Regulations. Yang (2010) found that there were more than 6,000 foundations in China in 1986. Even though the early foundations did not meet the standard of the Regulations, we should not ignore or diminish their previous existence. Two factors may explain their sharp decline in the 1990s. First, many of them became dysfunctional, were poorly managed, or conducted illegal activities. Second, several legislations and policies were enacted to restrict the foundations' registration and administration. See Zhao, Zhang, and Du (1997) for an informative summary of foundation activities in Hangzhou, Zhejiang.

problems (Fleishman, 2007).

Social transformation also accelerated in China during the past two decades. Many of the early observations on Chinese foundations, such as the nonexistence of community foundations or family foundations (Estes, 1998) and their predominant nature of weak independence and autonomy from the government (Watson, 2008), are no longer accurate (e.g., Wang, 2015). Data show that some Chinese and nonprofit scholars have conducted empirical examinations of Chinese foundations. For example, Lai, Zhu, Tao, and Spires (2015), Wang (2016), and Ma and Dedeo (2017) reviewed the government's mechanisms for controlling foundations; Xu and Liu (2016) and Nie, Liu, and Cheng (2016) investigated foundation governance and transparency; and Johnson and Ni (2015) and Wei (2017) analyzed foundations' ability to mobilize revenue. However, financial health, an important organizational capacity that allows foundations to benefit the sustainability of China's nonprofit sector, has not yet gained the attention it deserves. Consequently, the information in this article attempts to answer the following question: To what degree are Chinese foundations financially healthy?

In order to address this question, we employed the widely recognized nonprofit financial vulnerability model proposed by Tuckman and Chang (1991). They defined a nonprofit as financially vulnerable "if it is likely to cut back its service offerings immediately when it experiences a financial shock." They argued that "if an organization has access to equity balances, many revenue sources, high administrative costs, and high operating margins," it has greater flexibility for dealing with unfavorable conditions. Their financial ratio-based model has been extensively tested and widely used with or without modification to study the financial health of nonprofits in the United States. It has also been used in the study of for-profit organizations. Adopting a more positive tone, we regard a nonprofit as relatively financially healthy if it is likely to maintain a similar level of service when it undergoes financial austerity. Moreover, we created financial health scores to discern the subtleties of the quality of financial health improvements among foundations. Thus, the present article contributes to understanding the financial

health of Chinese foundations, adds new analytical perspectives to the Tuckman and Chang model, and lays the groundwork for future research. It is also a potential mechanism for benchmarking foundations' financial health in China.

The remainder of the article proceeds as follows. First, we review the literature on the financial health of nonprofits, with particular attention to the Tuckman and Chang model and its applicability to non-US nonprofits, and introduce foundations in China. Following the introduction to the evaluation method and data, we discuss Chinese foundations' financial health. We conclude with a summary of the findings, the limitations of our methodology, and recommendations for future research.

## LITERATURE REVIEW

Assessment of an organization's financial health captured the interest of people in the business and academic communities in the late 1960s, following W. H. Beaver and E. I. Altman's research on predicting business failures (Bukhori, Othman, Aris, & Omar, 2013). Since then accounting ratios have been widely used in the corporate realm as health indicators (e.g., Ohlson, 1980). Recognizing the dearth of such research in the nonprofit sector, Tuckman and Chang (1991) conceptualized a model of four ratios to measure nonprofits' financial vulnerability: adequacy of equity, revenue concentration, administrative cost ratio, and operating margin. They ranked the nonprofits that fell in the lowest quintile for all four measures as being severely at risk of becoming financially vulnerable; they ranked those with only one of the four measures in the bottom quintile as being at risk of becoming financially vulnerable. Table 1 presents the four ratios.

*Adequacy of Equity (EQUITY)*. Equity refers to net assets in the nonprofit sector. Nonprofits with relatively small amounts of equity may be less able to replace lost revenue following a financial shock than those with relatively large amounts of equity (Greenlee & Trussel, 2000). *EQUITY* is calculated by dividing net assets by total revenue.

**Table 1. Tuckman and Chang Nonprofit Financial Vulnerability Measures**

Measure	Formula
Adequacy of Equity ( <i>EQUITY</i> )	$\frac{\text{Net Assets}}{\text{Total Revenue}}$
Revenue Diversification ( <i>DIVERS</i> )	$\sum \left( \frac{\text{Revenue Source}_i}{\text{Total Revenue}} \right)^2$
Administrative Cost Ratio ( <i>ADMIN</i> )	$\frac{\text{Administrative Expenses}}{\text{Total Expenses}}$
Operating Margin ( <i>MARGIN</i> )	$\frac{\text{Total Revenue} - \text{Total Expenses}}{\text{Total Revenue}}$

Note: In the original Tuckman and Chang model, *DIVERS* was referred to as revenue concentration. We use *DIVERS* in order to make all of the four measures add positive points to the financial health scores. In some cases, *EQUITY* was replaced by debt ratio (total liabilities over total assets) as in Trussel (2002). Higher debt ratio leads to higher financial vulnerability. We also ran the entire analysis with the debt ratio. The two measures gave similar results.

*Revenue Diversification (DIVERS)*. Diversification of income is an indicator of a nonprofit organization’s dependency on any particular sources of revenue (Ashley & Faulk, 2010). Organizations with multiple revenue sources are more likely to survive financial shocks than those with few revenue sources (Greenlee & Trussel, 2000). Tuckman and Chang (1991) defined revenue diversification in terms of revenue concentration—a sum of squared percentage share that each revenue source takes of the total revenue. The higher level of revenue concentration is positively associated with nonprofit financial vulnerability. Put another way, a lower value of *DIVERS* means a higher revenue diversification, which in turn means lower financial vulnerability or higher financial health.

*Administrative Cost Ratio (ADMIN)*. Nonprofits with high administrative expenses could adjust to revenue reductions by taking steps to cut costs (Trussel & Parsons, 2008). Therefore those nonprofits do not have to reduce their overall level of services. *ADMIN* is calculated as administrative expenses divided by total expenses.

*Operating Margin (MARGIN)*. A nonprofit with a higher operating margin has a greater potential

surplus on which to draw during financial difficulties (Tuckman & Chang, 1991). Such nonprofits have an option to operate with a reduced operating margin rather than reduce their funding for services. *MARGIN* is calculated as total revenue less total expenses, divided by total revenue.

**Empirical Validation**

Vigorous empirical testing has largely confirmed the validity of the four measures. Greenlee and Trussel (2000) and Trussel (2002) found that a large equity balance provides nonprofits with the ability to maintain their services during financial setbacks. Carroll and Stater (2008), Greenlee and Trussel (2000), Keating, Fischer, Gordon, and Greenlee (2005), and Trussel (2002) demonstrated that the diversified revenue sources decrease nonprofits’ financial vulnerability. Greenlee and Trussel (2000) and Trussel (2002) proved that a high administrative cost ratio allows nonprofits more flexibility before having to shrink their program budgets. Greenlee and Trussel (2000), Hager (2001) and Trussel (2002) confirmed that greater operating margins extend an organization’s capacity to maintain and improve programs.

Many subsequent studies have adopted the Tuckman

and Chang measures to estimate nonprofit financial vulnerability (e.g., Carrol & Stater, 2008; Greenlee & Trussel, 2000; Hager, 2001; Trussel & Greenlee, 2004). McNeal (2016) noted that different researchers defined nonprofit financial vulnerability in different ways, such as a certain level of reduction in net assets (e.g., Trussel, 2002; Trussel & Greenlee, 2004) or program expenses (Greenlee & Trussel, 2000) for a period of time, the actual demise of nonprofits (e.g., Hager, 2001), or nonprofit program outcomes (e.g., Kim, 2017). With few exceptions, these researchers used all or some of Tuckman and Chang's measures. For example, Greenlee and Trussel (2000) found that all four measures are significantly higher for non-financially vulnerable nonprofits than for financially vulnerable nonprofits, when financial vulnerability refers to the reduction of program expenses for three consecutive years. In sum, the Tuckman and Chang measures proved to be a relatively reliable method for evaluating and predicting nonprofit financial vulnerability.

There are alternative models. Keating et al. (2005) found that the Ohlson model (Ohlson, 1980) outperformed the Tuckman and Chang model, but only to a marginal degree. The authors proposed an expanded model that works best among all models. Another example is De Andres-Alonso and Garcia-Rodriguez's (2016) multidimensional approach to study nonprofit financial vulnerability. They argued that researchers should simultaneously examine operational (variation of net assets over time), leverage (ratio of total assets to debt), and liquidity (ratio of current assets to short-term debt) vulnerabilities before determining nonprofits' financial condition. However, those models are still subject to testing and validation. Because part of our purpose is to bring Chinese and non-Chinese scholars and practitioners into meaningful conversations using common nonprofit finance language, the Tuckman and Chang model is an ideal choice. As we will show, this model has been applied widely on various organizations in many countries.

### **Worldwide Application**

Research on nonprofit financial conditions surged

worldwide over the past decade, and the most-used method in this research was the Tuckman and Chang method. Dayson (2013) cautiously recommended using the United States' operationalization research on nonprofit financial vulnerability for the United Kingdom's nonprofits. Thomas and Trafford (2013) applied Tuckman and Chang's method to 300 large UK charities in the cultural, sports, and recreational sectors from 2002 through 2007. They found that those charities, as expected, became less financially vulnerable on *EQUITY*, *DIVERS*, and *MARGIN* indicators. They also constructed a replicable Charities Financial Exposure Index with Tuckman and Chang's measures. Cordery, Sim, and Baskerville (2013) assessed the financial vulnerability in New Zealand amateur sports clubs through three different models: program expenditures, net assets, and net earnings. Each model included some of the Tuckman and Chang measures.

Bukhori et al. (2013) examined the financial vulnerability of cooperatives in Malaysia. Their findings matched the observed state of affairs among different cooperatives and largely confirmed the applicability of the Tuckman and Chang model. Sulaiman and Zakari (2015) investigated the financial health of Malaysian *waqf* institutions, which under Islamic law are endowments that are usually in the form of buildings, land, or other assets for religious, educational, or charitable causes. The findings indicated that those institutions were, on average, satisfactorily efficient and effective in managing *waqf* properties. Tevel, Katz, and Brock (2014) tested several models' ability to predict nonprofit financial vulnerability using a sample of Israeli performing arts organizations. Their findings revealed that Tuckman and Chang's model provided the best prediction of financial vulnerability, and a reduced version of Tuckman and Chang offered an even better prediction. Using data from 295 nonprofits in Uganda to explore the possible relationship between organizational characteristics and financial vulnerability, Silva and Burger (2015) confirmed that *DIVERS*, *MARGIN*, and the existence of *EQUITY* are significant predictors of financial vulnerability. Interestingly, we also found application of the Tuckman and Chang model

to for-profit firms. Through structural equation modeling, Aslam and Amin (2015) found that in the pharmaceutical sector in Pakistan, intellectual capital had a significant impact on the firms' overall financial health, as indicated by the four measures.

The empirical application of the Tuckman and Chang model has frequently appeared in US and non-US literature dealing with nonprofits' financial health. Despite the cultural, economic, and social differences among the countries, the Tuckman and Chang method seemed to be a valuable analytical tool. The contextual differences among the countries did not undermine or negate the utility of the method. In some cases, not all of the measures were significant; however, this affected the method's efficiency rather than its validity. Researchers have also used the Tuckman and Chang measurements on foundations. For example, Ashley and Faulk (2014) incorporated all four measures as financial health variables into their evaluation index to study the risk level of foundations' grantmaking portfolios.

### **Foundations in China**

Foundations, social associations, and service social organizations (formerly known as civic non-enterprise institutions) are "social organizations" that are formally registered nongovernmental organizations in China. The 2004 *Regulations* defines foundations as nonprofit legal entities that carry out charitable activities using assets donated by natural persons, legal persons, or other organizations. The key stipulations in the *Regulations* and our observations outline how foundations register and operate in China.

1. *Registration*: Foundations are required to register with either the Ministry of Civil Affairs (MCA) or civil affairs departments at provincial or city levels. The foundations usually need to secure sponsorship from government agencies, the Communist Party of China (CPC), democratic parties, or mass organizations before registering. Recently, a number of provinces and cities have allowed foundations focusing on social services to register directly with the civil affairs departments.

2. *Operation*: Foundations can conduct charitable

programs and raise donations only in their registered jurisdiction. The *Regulations* prohibits regional foundations from opening branches in other regions. In reality, however, some foundations do have representatives in other cities or provinces in the form of liaisons or programs.

3. *Charitable expenses*: All foundations must meet the requirements of a minimum level of annual charitable expenses (a public foundation is mandated to spend no less than 70% of its total revenue in the previous year; a private foundation is required to spend no less than 8% of the remaining funds from the previous year), which are capped at 10% of annual expenses on administrative overhead and employee salaries and benefits.

4. *Revenue sources*: Foundations are required to report the revenue from seven sources: donations, investments, government subsidies, services, products, membership fees, and "other" revenue, which is usually interest earned on bank accounts. Among these, donations and other revenue are the most common sources.

5. *Governance*: Foundations must establish a board of directors, specify one or more supervisors, and establish the rules of operation in their bylaws. The secretary-general (equivalent to the position of president or chief executive officer in US foundations) runs the day-to-day business.

6. *Reporting*: By the end of March each year, foundations must report their organizational information, financial activities, and program implementation to the civil affairs departments. The financial statement comprises the balance sheet, cash flow sheet, activity sheet, and so on, resembling the data reported by American nonprofits to the Internal Revenue Service. The financial data must be audited by a qualified accounting firm. Those financial sheets provide the variables needed to calculate the Tuckman and Chang measures.

7. *Fundraising status*: Public foundations and private foundations differ in the way they raise donations. The

**Table 2. Key Differences between Public Foundations and Private Foundations**

	Public Foundations	Private Foundations
Jurisdiction	National or regional	Regional only
Registration Capital	For national foundations: No less than 8 million Chinese Yuan (CNY) (about \$1,200,000). For regional foundations: No less than 4 million CNY (about \$600,000)	No less than 2 million CNY (about \$300,000)
Fundraising Source	The general public	Not permitted to raise donations publicly, but allowed to solicit donations in a small circle such as family, friends, etc.
Annual Charitable Expenditures	No less than 70% of the total revenues of the previous year	No less than 8% of the net assets of the previous year

former can raise donations from the public, whereas the latter are allowed to solicit donations only from a small circle of people. Despite the difference, donations have been the most important source of revenue for both types of foundations. Table 2 compares the two types of foundations.

Wang (2015) conducted a comprehensive review of 3,344 foundations' registration records, bylaws and news, and found that before 2014 the government (including government agencies, CPC organs, democratic parties, and mass organizations), corporations, and universities constituted about two-thirds of the foundations. Many foundations work on multiple issues, with education, welfare of disadvantaged people, and poverty alleviation being the most popular issues. Different from the United States where grantmaking foundations dominate, the vast majority of Chinese foundations are operating foundations that conduct programs on their own. In this sense, their services are mainly delivered through programs rather than grants.<sup>2</sup>

<sup>2</sup> This is a legitimate concern for simultaneous application of the Tuckman and Chang measures to both operating and grantmaking foundations. However, at this moment, it is hard to identify each foundation as operating or grantmaking, or both (mixed), because foundations do not need to classify themselves as grantmaking or operating in their annual reports. The actual number of grantmaking foundations is still unknown. Even if the measures are inappropriate for grantmaking foundations, our analysis should still be objective, because the small number of grantmaking foundations have very limited effect on the statistical outputs. From 2015, foundations registered with the MCA and some regional civil affairs departments were required to specify the nature of each program to be either grantmaking, operating, or mixed. We can expect to learn more about how foundations spent their money when such data become available.

Considering its extensive testing and application, as well as the financial reporting practices of Chinese and US foundations, the Tuckman and Chang model is an ideal tool to explore the financial health of Chinese foundations. The Tuckman and Chang measures were recently utilized in Chinese foundations. Following Greenlee and Trussel (2000), Gan and Li (2015) found the Tuckman and Chang measures more appropriate than the Greenlee and Trussel measures (including *DIVERS*, *ADMIN*, *MARGIN*, the ratio of debt to total assets, and the natural log of total assets) for the public foundations in the education areas in China. Zhang and Zhu (2016) replicated Gan and Li (2015) for a sample of foundations registered with the MCA and concluded the same. Their research preliminarily proved that the Tuckman and Chang measures are applicable in China.

However, their research has three limitations. First, their method requires each foundation's financial data for three consecutive years. This will put a constraint on the sample size. Second, their methodology identified foundations' level of financial health, but did not reveal or rank the foundations' "quality of health" within the same level. That is, the actual health condition of two financially unhealthy foundations differs. Thus, it is not clear how to determine and compare their quality of health. Third, although it did not seem to be a particular problem in their samples, we did find a number of extreme values that significantly affected the mean and standard deviations. Those values make reliance on the actual ratios and their means

**Table 3. Evaluation Method**

Key Values	Max	Third Quartile	Median	First Quartile	Min
Range	Top Quartile	Upper Middle Quartile	Lower Middle Quartile	Bottom Quartile	
Health Points	4	3	2	1	
Example: Four Foundations A, B, C, D					
<i>EQUITY</i>	A, B	C			D
<i>DIVERS</i>	A, B		C		D
<i>ADMIN</i>	A, C	B			D
<i>MARGIN</i>	A		B		C, D
Health Evaluation for the Four Foundations					
Conclusion	Very healthy	Healthy	Unhealthy	Very unhealthy	
Criteria	All measures in the top quartile	Not all measures in the top quartile, and none in the bottom quartile	One to three measures in bottom quartile	All measures in bottom quartile	
Foundation A	Yes (16)				
Foundation B		Yes (13)			
Foundation C			Yes (10)		
Foundation D				Yes (4)	
Total Point Range	16	8–15	5–13	4	

Note: The minimum health score for healthy foundations is a result of all measures being in the lower middle quartile; the maximum is that of three measures being in the top quartile and one measure in the upper middle quartile. The minimum health score for unhealthy foundations is a result of three measures being in the bottom quartile and one measure in the lower middle quartile; the maximum is that of three measures being in the top quartile and one measure in the bottom quartile.

problematic. Ways to alleviate those limitations are addressed in this article.

**METHODOLOGY**

Creating benchmarks with ratios, percentiles, rankings, and scores is common practice in all industries. We agree with Tuckman and Chang (1991) and other researchers that nonprofit financial health is a relative analytical process. The evaluation of one foundation’s financial health is relative to the sample under study. Interpretation of the results should be contextual, not absolute. To accommodate China’s less developed nonprofits in terms of numbers, assets, resources, and capacities as compared with those in the United States, we used quartiles rather than quintiles that Tuckman and Chang (1991) originally utilized to create financial health levels. Doing so increased the

chance of a foundation being financially unhealthy. We also created financial health scores to facilitate and verify the Tuckman and Chang measures. In the process of data analysis, the scores helped us avoid overstating the results. Table 3 illustrates our method. We used the third quartile, median, and first quartile to divide the foundations into four equal groups for each measure and year. A foundation is

1. very healthy if it ranks in the top quartile for all measures;
2. healthy if it (1) does not rank in the top quartile for all measures, AND and (2) does not rank in any of the four bottom quartiles;
3. unhealthy if it ranks in the bottom quartile for one to three measures; and
4. very unhealthy if it ranks in the bottom quartile for all measures.

By this standard, the hypothesized foundations A, B, C, and D, according to their rank across all measures, are very healthy, healthy, unhealthy, and very unhealthy. If a foundation ranks in a top quartile, it earns 4 points; in an upper middle quartile, 3 points; in a lower middle quartile, 2 points; and in a bottom quartile, 1 point. Because revenue diversification is calculated as revenue concentration that is negatively related with financial health, we reversed the point distribution to make sure a higher level of diversification returned greater points. The four foundations earned 16, 13, 10, and 4 points, respectively. The total point range indicates how many points a foundation can earn within its health level. Any of the four measures is integral to a foundation's overall financial health. Being too weak on any one of them can be more serious than being mediocre on all of them (Tuckman & Chang, 1991). However, Tuckman and Chang did not distinguish the difference between foundations within the same health level. As a result, the information for the "quality of health," which we define as the scored health condition for all foundations and for foundations within each health level, is missing. Our method adds such information to the analysis and uses the scores to assess the quality of financial health changes over time. For example,

if a foundation moves from the unhealthy level to the healthy level, its score can increase from 5 to 8 points, or from 5 to 15 points. The latter improvement shows a better quality of health improvement.

### Data

This article draws data from the Research Infrastructure of Chinese Foundations (RICF; <http://ricf.org.cn>). For each foundation, the RICE contains three major types of information: organization, financial, and programs. Ma, Wang, Dong, and Li (2017) documented the data collection and quality control mechanism in detail. At the time of this writing, the RICE held data on 3,344 foundations founded before 2014. The number is close to the 3,549 reported by the 2014 *China Statistical Yearbook*. The financial data are available for 11,289 observations of 2,926 foundations ranging from 2008 through 2013.

For mathematical reasons, we removed the observations that (1) had a total revenue of zero and (2) had a total expense of zero. We also removed foundations whose total assets were zero. Table 4 offers the plausible reasons for removing the observations from the sample. In the end, we kept 2,763 foundations

**Table 4. Reasons for Observation Removal**

<b>Removal: Part A</b>				
Total Assets	Total Expenses	Total Revenue	Reasons to Remove	Number Removed
0	0 or Not 0	0 or Not 0	Possible termination of foundation	120
Not 0	0	0	Foundation being inactive or dysfunctional	153
		Not 0	All cost paid by founding organization	595
	Not 0	0	Likely to be severely financially vulnerable; not interested in raising funds	212
<b>Removal: Part B</b>				
Year of establishment is after the earliest available data			Possibly reregistered; organizational change, if any, unknown	23
Any one of revenue sources is negative			Potential to distort revenue diversification	65
Total expenses are negative			Reason unknown	8
Outliers for each measure			Some of the outliers being enormously different from rest of values; conservatively removed	11
Total Removal				1,187

with 10,102 observations.

### **Data Description**

We summarized the variables for multiple years in Table 5.

Table 5 first presents the distribution of observations in terms of fundraising status and scope. The average age tended to decrease over time. Donations remained the largest source of revenue for all years; this was true for both public and private foundations. Total revenue fluctuated some years, but the general trend was a reduction. The average number of revenue sources remained almost the same. More foundations began to receive investment income, and the percentage of public foundations that earned income from investments was higher than private foundations in all years. Public foundations are more likely to receive government subsidies. The average total revenue was greater than the average total cost in all years. The average administrative expenses and total expenses also fluctuated to a relatively small extent, except for the administrative expenses in 2011. Each year more foundations were registered than in the previous year, and they usually started on a relatively small financial scale. Accordingly, we do not observe a substantial increase in most of the average statistics.

## **RESULTS AND DISCUSSION**

In this section, we empirically evaluate Chinese foundations' financial health utilizing the method previously described. Specifically, we calculate the key statistics for each measure to build the benchmark for health levels; then we discuss the changes over time for the measures' health levels and scores; and last we compare the public foundations, private foundations, and a group of recent foundations. Table 6 shows the key statistics of the four measures.

As shown in Table 6, the maximums and minimums of annual *EQUITY* and *MARGIN* exhibit high variation. This should not be a surprise because the quotient can be extremely large or small even when neither the numerator nor the denominator is an outlier in its own group. The unusually high or low maximums and

minimums are determined in only a few observations and exert little effect on the quartiles. The means, however, are severely biased; thus we base our discussion about the four measures on medians, with necessary reference to the means.

For *EQUITY*, the annual medians imply that a typical foundation's ability to use net assets to remedy financial hardship undergoes a slight U curve. This is also roughly true for the means if we remove the extreme ratios. The means are significantly greater than the medians, implying a huge gap between certain foundations and the rest of the foundations. We observe almost no change in *DIVERS*. This is consistent with the descriptive data that on average foundations had 2.2 revenue sources in all years. In comparison to its annual medians, the means of *ADMIN* dropped by about 20% from 2008 to 2013. This is because of a sharp decline of its third quartiles over the years. All the means, medians, and quartiles show a decline in *MARGIN*. Its first quartiles were negative in all years, indicating that every year more than 25% of the foundations overspent (total revenue minus total expenses less than zero). The reason is probably that some foundations were relatively incapable of generating revenue or that they increased their expenses on either program services or administration, or both. Because of the presence of large negative *MARGIN* ratios in a fairly large number of foundations, the distribution is skewed to a different direction, as in *EQUITY*. Interestingly, most first quartiles and third quartiles became closer to the medians for *EQUITY*, *DIVERS*, and *ADMIN*, but not for *MARGIN*. There seemed to be a decreasing gap between healthy and unhealthy foundations.

We also calculated the overall statistics for the measures. All the overall medians and quartiles fall between the annual maximums and minimums for all measures. They serve as a relatively stable measurement for the whole sample for the entire period. The overall medians and quartiles therefore are good candidates to benchmark the four financial health levels. Table 7 summarizes the financial health scores and levels.

**Table 5. Descriptive Statistics**

Year	2008	2009	2010	2011	2012	2013	Overall
Total observations of number of foundations	938	1,173	1,514	1,719	2,236	2,522	10,102 of 2,763
<b>Fundraising Status</b>							
Public	541	634	757	771	982	1,033	4,718
Private	397	539	757	948	1,254	1,489	5,384
Average Age	7.94	7.71	7.14	6.83	6.62	6.66	6.99
<b>Average Revenue</b>							
Donation (CNY)	16,746,293 777 <i>(453/324)</i>	12,320,966 971 <i>(524/447)</i>	15,222,256 1,292 <i>(651/641)</i>	14,840,847 1,492 <i>(683/809)</i>	11,803,656 1,905 <i>(846/1,059)</i>	12,444,937 2,159 <i>(882/1,277)</i>	13,511,931 8,596 <i>(4,039/4,557)</i>
Investment (CNY)	1,343,455 267 <i>(172/95)</i>	789,725 293 <i>(177/116)</i>	558,813 365 <i>(209/156)</i>	471,267 437 <i>(235/202)</i>	590,215 592 <i>(302/290)</i>	792,800 704 <i>(343/361)</i>	708,951 2,658 <i>(1,438/1,220)</i>
Government Subsidy (CNY)	1,634,487 162 <i>(138/24)</i>	1,458,045 208 <i>(175/33)</i>	1,160,706 242 <i>(214/28)</i>	1,418,919 261 <i>(210/51)</i>	1,388,026 385 <i>(312/73)</i>	1,270,732 437 <i>(346/91)</i>	1,360,946 1,695 <i>(1,395/300)</i>
Service (CNY)	103,136 49 <i>(29/20)</i>	69,463 45 <i>(31/14)</i>	70,146 53 <i>(39/14)</i>	91,774 60 <i>(33/27)</i>	88,454 67 <i>(41/26)</i>	100,364 85 <i>(41/44)</i>	88,407 359 <i>(214,145)</i>
Products (CNY)	11,766 9 <i>(6/3)</i>	8,464 10 <i>(6/4)</i>	7,859 7 <i>(2/5)</i>	9,542 5 <i>(3/2)</i>	5,396 9 <i>(5/4)</i>	1,340 7 <i>(4/3)</i>	6,406 47 <i>(26/21)</i>
Membership Fee (CNY)	3,769 11 <i>(8/3)</i>	1,956 9 <i>(6/3)</i>	6,645 18 <i>(12/6)</i>	7,591 15 <i>(11/4)</i>	13,852 14 <i>(9/5)</i>	7,372 19 <i>(6/13)</i>	7,771 86 <i>(52/34)</i>
Other (CNY)	439,580 794 <i>(482/312)</i>	372,672 1,014 <i>(565/449)</i>	395,010 1,299 <i>(665/634)</i>	407,523 1,513 <i>(690/823)</i>	473,864 1,988 <i>(894/1,094)</i>	485,734 2,251 <i>(956/1,295)</i>	438,787 8,859 <i>(4,252/4,607)</i>
Total (CNY)	20,282,484	15,021,291	17,421,436	17,247,464	14,363,463	15,103,278	16,123,199
Average number of revenue sources	2.21	2.17	2.16	2.20	2.22	2.25	2.21
<b>Average Assets</b>							
Net (CNY)	33,029,714	31,026,130	32,040,333	33,644,923	33,057,591	34,347,614	33,088,662
Total (CNY)	35,352,829	32,985,111	34,449,327	35,476,709	35,604,833	36,349,993	35,268,295
<b>Average cost</b>							
Administrative (CNY)	155,255	128,959	141,970	193,206	131,654	129,344	144,976
Total (CNY)	12,981,359	10,299,181	11,277,083	11,234,258	10,217,004	11,016,589	11,014,820

Note: The numbers in the italic form denote the number of observations that receive revenue from that source: the number of all foundations (the number of public foundations/the number of private foundations). The number of observations is equivalent to the number of foundations in each year.

**Table 6. Key Statistics of the Four Measures**

<b>EQUITY</b>								
Year	Observations	Mean	SD	Max	Third Quartile	Median	First Quartile	Min
2008	938	104.901	992.693	21,679.295	10.382	3.205	1.128	-1.536
2009	1,173	72.285	602.496	11,827.964	10.876	3.339	1.282	0.000
2010	1,514	84.623	909.851	20,170.282	9.189	2.952	1.208	-38.716
2011	1,719	126.911	1,700.884	46,244.306	8.662	2.975	1.210	-0.733
2012	2,236	250.323	5,213.289	203,166.275	9.259	3.505	1.396	-6,363.978
2013	2,522	124.192	1,940.439	78,564.131	9.566	3.611	1.548	-7,793.922
Overall	10,102	138.824	2,776.120	203,166.275	9.511	3.321	1.323	-7,793.922
<b>DIVERS</b>								
Year	Observations	Mean	SD	Max	Third Quartile	Median	First Quartile	Min
2008	938	0.844	0.192	1.000	0.996	0.946	0.709	0.254
2009	1,173	0.848	0.189	1.000	0.998	0.954	0.709	0.314
2010	1,514	0.862	0.185	1.000	0.998	0.970	0.758	0.278
2011	1,719	0.860	0.179	1.000	0.996	0.958	0.754	0.308
2012	2,236	0.847	0.189	1.000	0.996	0.949	0.730	0.315
2013	2,522	0.846	0.188	1.000	0.996	0.943	0.720	0.277
Overall	10,102	0.851	0.187	1.000	0.997	0.953	0.732	0.254
<b>ADMIN</b>								
Year	Observations	Mean	SD	Max	Third Quartile	Median	First Quartile	Min
2008	938	0.062	0.158	1.000	0.051	0.017	0.002	0.000
2009	1,173	0.063	0.165	1.000	0.045	0.016	0.003	-0.051
2010	1,514	0.065	0.170	1.000	0.047	0.016	0.004	-0.084
2011	1,719	0.061	0.166	1.000	0.043	0.018	0.004	0.000
2012	2,236	0.059	0.164	1.000	0.041	0.017	0.004	-0.200
2013	2,522	0.051	0.143	1.035	0.038	0.015	0.004	-0.233
Overall	10,102	0.059	0.160	1.035	0.043	0.017	0.004	-0.233
<b>MARGIN</b>								
Year	Observations	Mean	SD	Max	Third Quartile	Median	First Quartile	Min
2008	938	-4.844	75.840	1.000	0.600	0.268	-0.068	-2,205.109
2009	1,173	-7.987	149.833	1.000	0.619	0.212	-0.102	-4,900.954
2010	1,514	-20.791	365.068	1.000	0.653	0.244	-0.018	-11,347.281
2011	1,719	-10.146	165.535	1.000	0.621	0.233	-0.068	-4,492.772
2012	2,236	-17.706	280.561	1.000	0.623	0.214	-0.092	-8,545.144
2013	2,522	-16.423	306.184	1.000	0.562	0.194	-0.125	-12,709.315
Overall	10,102	-14.239	261.920	1.000	0.607	0.223	-0.082	-12,709.315

As shown in Table 7, only a small number of foundations are considered very healthy through all the years. Cumulatively, only 39, or 0.39% out of the total observations, rank in all top quartiles. From 2008 to 2013, the annual percentage of healthy foundations

increased by 3.95%, and the unhealthy decreased by 3.78%. The very unhealthy foundations amounted to six for five out of six years. As the number of foundations increased, the annual percentage of very unhealthy foundations dropped. Although inconsistencies exist, a

very moderate improvement for foundations' financial health is still present. As expected, the annual scores correspond to the percentage of healthy and unhealthy foundations, but only roughly. In general, when the percentage of healthy foundations increases and the percentage of the unhealthy foundations decreases, the health score increases, and vice versa. The reason for the absence of a stronger correlation between the scores and the percentages of health levels is that although a foundation maintained its financial health status, some of its measures might have moved to a higher or lower quartile. The lower-right corner of Table 7 shows that more than 40% of the unhealthy foundations have more than one measure in the lowest quartile each year. A foundation that stays in the same health level may obtain different scores each year (see Table 3: Healthy, 8–15 points; Unhealthy, 5–13 points). If the annual average scores of healthy foundations are closer to 15 (above the average of 11.5 points) or the annual average scores of unhealthy foundations are closer to 13 (above the average of 9 points), we can conclude that, within each health level, the quality of foundations' financial health is good; otherwise, it is not. As shown at the tables' bottommost center, the average scores are not substantially different from the means. So the quality of health for foundations on the two health levels is mediocre. The healthy foundations scored about three more points than the unhealthy foundations each year. The average annual scores of healthy foundations decreased by 4.85% over the six years. Their decreased quality of health partially explains the small changes among all foundations' average annual health scores.

We then looked at the public and private foundations separately. The data tend to comply with our hypothesis that their legal distinctions differentiate their financial health. The annual percentage of each health level shows that the financial health of both types of foundations has improved; public foundations outperformed private foundations on almost all medians and quartiles in all years. However, the changes of the percentage of foundations on each health level do not translate very well to their annual scores. Again, this shows that their quality of health has declined moderately. The t-test on the average

health scores of public and private foundations reveals that since 2009 public foundations' financial health has become increasingly better than private foundations'. To examine whether public foundations have done better on all measures than private foundations, we calculated and compared their health scores for each measure, as shown in Table 8.

In Table 8, the overall statistics of the six years show that public foundations on average have done better on *EQUITY*, *DIVERS*, and *ADMIN* but worse on *MARGIN* than private foundations. Significant differences between the average annual *DIVERS*, *ADMIN*, and *MARGIN* scores occurred in multiple years, and the differences are consistent with the overall health scores. Because public foundations outperformed private foundations on three out of four measures, it is not surprising, as shown in Table 7, that (1) public foundations' annual health scores were significantly higher than private foundations and (2) a higher percentage of public foundations were on the healthy level and a lower percentage of public foundations were on the unhealthy level. It is worth noting that, as Table 5 shows, public foundations were far more likely to receive government subsidies than private foundations in terms of both number and percentage. This is because most public foundations were created by the government or government-related organizations (Wang, 2015). It seems that government subsidies have, so far, been a stable revenue source for public foundations. However, if this revenue source were to become less available, public foundations' *DIVERS* ratios and health scores would decrease.

The relatively small annual statistical changes in the above tables led us to realize that, since the sample contains both early and more recent foundations, it would be useful to examine a group of recent foundations. The recent foundations can help us learn (1) whether they have affected the whole sample and, if so, to what extent, and (2) whether their financial health has effectively improved. We identified the foundations registered in 2008 and investigated their financial health from 2008 to 2013 (corresponding age 0 to 5). Table 9 records the statistics.

**Table 7. Evaluation Results**

<b>All</b>											
Year	Observations	Average Health Score	SD	Very Healthy & %		Healthy & %		Unhealthy & %		Very Unhealthy & %	
2008	938	10.068	2.546	2	0.21%	311	33.16%	619	65.99%	6	0.64%
2009	1,173	9.954	2.452	2	0.17%	381	32.48%	780	66.50%	10	0.85%
2010	1,514	9.926	2.374	5	0.33%	503	33.22%	1,000	66.05%	6	0.40%
2011	1,719	9.956	2.385	8	0.47%	599	34.85%	1,106	64.34%	6	0.35%
2012	2,236	10.060	2.297	11	0.49%	812	36.31%	1,407	62.92%	6	0.27%
2013	2,522	10.017	2.252	11	0.44%	936	37.11%	1,569	62.21%	6	0.24%
Overall	10,102	10.000	2.355	39	0.39%	3,542	35.06%	6,481	64.16%	40	0.40%
<b>Public</b>											
Year	Observations	Average Health Score	SD	Very Healthy & %		Healthy & %		Unhealthy & %		Very Unhealthy & %	
2008	541	10.251	2.581	2	0.37%	201	37.15%	335	61.92%	3	0.55%
2009	634	10.177	2.572	2	0.32%	232	36.59%	396	62.46%	4	0.63%
2010	757	10.242	2.436	2	0.26%	299	39.50%	453	59.84%	3	0.40%
2011	771	10.214	2.523	6	0.78%	311	40.34%	451	58.50%	3	0.39%
2012	982	10.451	2.344	7	0.71%	409	41.65%	566	57.64%	0	0.00%
2013	1,033	10.446	2.302	10	0.97%	448	43.37%	573	55.47%	2	0.19%
Overall	4,718	10.318	2.440	29	0.61%	1,900	40.27%	2,774	58.80%	15	0.32%
<b>Private</b>											
Year	Observations	Average Health Score	SD	Very Healthy & %		Healthy & %		Unhealthy & %		Very Unhealthy & %	
2008	397	9.819	2.478	0	0.00%	110	27.71%	284	71.54%	3	0.76%
2009	539	9.692	2.277	0	0.00%	149	27.64%	384	71.24%	6	1.11%
2010	757	9.610	2.269	3	0.40%	204	26.95%	547	72.26%	3	0.40%
2011	948	9.746	2.246	2	0.21%	288	30.38%	655	69.09%	3	0.32%
2012	1,254	9.754	2.212	4	0.32%	403	32.14%	841	67.07%	6	0.48%
2013	1,489	9.720	2.169	1	0.07%	488	32.77%	996	66.89%	4	0.27%
Overall	5,384	9.721	2.241	10	0.19%	1,642	30.50%	3,707	68.85%	25	0.46%
<b>t-test for the scores of public &amp; private foundations</b>											
		Average health score for foundations in each health level				Number of measures in the bottom quartile					
Year	t score	Very Healthy	Healthy	Unhealthy	Very Unhealthy	One	Two	Three	Total	% of Two & Three	
2008	2.60	16.000	12.277	8.998	4.000	338	207	74	619	45.40%	
2009	3.42**	16.000	12.081	8.976	4.000	409	278	93	780	47.56%	
2010	5.22***	16.000	11.944	8.916	4.000	543	365	92	1,000	45.70%	
2011	4.02***	16.000	11.913	8.884	4.000	625	386	95	1,106	43.49%	
2012	7.16***	16.000	11.869	8.995	4.000	809	474	124	1,407	42.50%	
2013	7.98***	16.000	11.709	8.989	4.000	913	519	137	1,569	41.81%	
Overall	12.73***	16.000	11.904	8.960	4.000	3,637	2,229	615	6,481	43.88%	

Note: \*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001.

**Table 8. Financial Health Comparison between Public and Private Foundations**

Year		Average EQUITY			Average DIVERS			Average ADMIN			Average MARGIN			
		Public	Private	t score	Public	Private	t score	Public	Private	t score	Public	Private	t score	
2008	541	397	2,499	2,421	1.01	2,715	2,287	6.62***	2,555	2,476	0.99	2,482	2,635	-2.05*
2009	634	539	2,574	2,451	1.82	2,705	2,208	7.47***	2,502	2,432	1.03	2,396	2,601	-3.07**
2010	757	757	2,450	2,432	0.31	2,658	2,132	9.26***	2,614	2,424	3.27**	2,519	2,622	-1.80
2011	771	948	2,433	2,423	0.18	2,738	2,274	8.96***	2,584	2,468	2.17*	2,459	2,580	-2.26*
2012	982	1,254	2,611	2,461	3.24**	2,820	2,289	11.60***	2,632	2,427	4.43***	2,388	2,577	-3.96***
2013	1,033	1,489	2,600	2,541	1.36	2,852	2,347	11.60***	2,579	2,388	4.40***	2,415	2,445	-0.68
Overall	4,718	5,384	2,536	2,468	3.06**	2,760	2,272	22.41***	2,583	2,427	7.02***	2,439	2,554	-5.19***

Note: \*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001

**Table 9. Evaluation of Recent Foundations' Financial Health**

<b>Healthy Levels</b>										
Year	Observations	Very Healthy & % of Total		Healthy & % of Total		Unhealthy & % of Total		Very Unhealthy & % of Total		Average Health Score
2008	101	1	0.99%	19	18.81%	81	80.20%	0	0.00%	9.802
2009	165	1	0.61%	44	26.67%	119	72.12%	1	0.61%	9.727
2010	176	0	0.00%	56	31.82%	119	67.61%	1	0.57%	9.938
2011	172	0	0.00%	68	39.53%	104	60.47%	0	0.00%	9.936
2012	173	1	0.58%	68	39.31%	104	60.12%	0	0.00%	9.977
2013	168	2	1.19%	59	35.12%	107	63.69%	0	0.00%	9.940
Overall	955	5	0.52%	314	32.88%	634	66.39%	2	0.21%	9.894

  

<b>Key Statistics</b>										
Year	Observations	<i>EQUITY</i>		<i>DIVERS</i>			<i>ADMIN</i>		<i>MARGIN</i>	
		Median	Average Score	Median	Average Score	Number of Sources	Median	Average Score	Median	Average Score
2008	101	0.999	2.010	0.993	2.000	1.901	0.018	2.574	0.764	3.218
2009	165	2.372	2.370	0.983	2.200	1.988	0.016	2.461	0.366	2.697
2010	176	3.459	2.568	0.981	2.335	2.063	0.015	2.506	0.219	2.528
2011	172	3.254	2.535	0.959	2.471	2.093	0.019	2.564	0.151	2.366
2012	173	3.617	2.624	0.922	2.671	2.208	0.015	2.491	0.069	2.191
2013	168	4.331	2.679	0.940	2.571	2.220	0.015	2.423	0.092	2.268
Overall	955	3.195	2.498	0.971	2.403	2.092	0.016	2.498	0.207	2.494

According to the health levels in Table 9, the recent foundations have made impressive progress financially. Specifically, the percentage of healthy foundations increased (yet still lower than all foundations), and the percentage of unhealthy foundations decreased (yet still higher than all foundations). It seems they have greatly improved their financial health in the past six years. However, they still negatively affected the statistics of the whole sample. The average annual health scores, while confirming the positive trend, show much less change and are lower than the scores of all foundations (see Table 7). This led us to examine the key statistics of each measure.

We found that the annual medians of *EQUITY* and *DIVERS* ratios increased, while the annual medians of *ADMIN* and *MARGIN* ratios decreased. Such changes are particularly noticeable for *EQUITY* and *MARGIN*. The health scores individually correspond well to the medians, confirming that recent foundations have improved on *EQUITY* and *DIVERS*, while declining

on *ADMIN* and *MARGIN*. The changes are largely the result of revenue. In their first annual report, foundations usually treat the registration capital as revenue. This made the *EQUITY* ratio low and the *MARGIN* ratio high in 2008. The high *MARGIN* ratio is also because foundations did not spend much that year, partially because they had been operating for less than one full year. In the subsequent years, foundations began to normalize their financial activities. Gradually, the increase of net assets outpaced the increase of revenue, leading to higher *EQUITY* ratios. As foundations expanded their programs, *MARGIN* ratios became lower. *MARGIN* should be a particular concern to foundation managers not only because some foundations have done poorly in balancing their revenue and expenses but also because foundations may have a hard time expanding their programs. The improvement of *DIVERS* was quite limited. Thus *EQUITY*, *DIVERS*, and *MARGIN* as a whole indicate a relatively low revenue. Equally interesting is that *ADMIN* is very low compared with the ratios of all

foundations (see Table 6), which is probably because more often than not founding organizations pay part, if not all, of their administrative expenses.

We also noted that in most cases both the overall medians of each measure (at the bottom of the table) and the average annual health scores (at the upper-right corner of the table) of the more recent foundations are lower than all foundations (see Table 6 and Table 7). Thus when a recent foundation is on the same health level with an older foundation, the chance is good that the older foundation has a better quality of health, or put another way, a higher score. To examine the validity of the preceding findings, we added the foundations registered in 2009 and 2010 to the group. The results largely confirmed the findings.

## CONCLUSION

This article presents one of the first empirical evaluations for Chinese foundations' financial health. Applying the Tuckman and Chang model, we found that about two-thirds of Chinese foundations are financially unhealthy; public foundations have outperformed private foundations; and recent foundations have improved their financial health more quickly than all the sampled foundations. Overall, Chinese foundations' financial health improved moderately from 2008 to 2013. However, the Tuckman and Chang method has limitations in terms of evaluating the quality of health improvement; thus we added financial health scores to investigate the quality of health for public, private, recent, and all foundations as well as for all measures. The health scores show that although some foundations have moved out of the lowest quartile of certain measures, their health condition on other measures may move down at the same time. As a result, we observed only limited changes of the annual health scores in all tables. The health scores also revealed that public foundations did outperform private foundations, but not on all measures. Last, we discovered that the recent foundations are not only less healthy than all foundations in terms of the percentages for health levels but also in terms of health scores. This discovery implies that we should view the improvement of Chinese foundations' financial health

conservatively. The financial health scores proved to be a useful supplement to and development of the Tuckman and Chang model.

This study adds empirical knowledge to the literature on nonprofit financial health and Chinese foundations. It also develops a practical method to comprehensively evaluate and interpret the financial health statistics. Nevertheless, our methodology has limitations. First, the use of ratios does not capture foundations' financial scale. Foundations on the same level of financial health may behave differently and adopt different strategies to deal with financial hardship. Second, as Tuckman and Chang (1991) pointed out, their model does not measure outputs. That is, we do not know whether foundations have conducted programs differently in order to maintain service quality and quantity when revenue shrinks. It is possible that financially unhealthy foundations can still meet their service goals, but we did not observe it.

Future research may look into the impact of external variables on a foundation's financial health. Prentice (2016) showed that local GDP, nonprofit density, household income, and other environmental variables can affect nonprofits' financial health. Fisman and Hubbard (2005) found that the strength of state oversight can influence nonprofits' financial behavior. Because Chinese nonprofits operate in a different social, political, and economic context than do Western countries, it would be interesting to see what has shaped their financial health and practice. Second, while the traditional wisdom is that revenue diversification contributes to stable revenue and organizational longevity (Carroll & Stater, 2008), competing theories offer different arguments. Some researchers argue that revenue concentration can benefit nonprofits, such as lowering administrative and fundraising expenses (e.g., Frumkin & Keating, 2011) and even increasing total revenue (e.g., Chikoto & Neely, 2014). Some other researchers believe that the effects of revenue diversification on volatility and expected revenue depend on the compositional change in the portfolio, not simply on the number of revenue sources (e.g., Mayer, Wang, Egginton, & Flint, 2014). The revenue composition is determined by the public or

private nature of services (Fischer, Wilsker, & Young, 2011) or a strategic choice (Kingma, 1993). Testing the competing theories with Chinese foundations will contribute comparative knowledge to the literature, and meanwhile it offers strategic recommendations for those foundations to improve their financial health. The third question to answer is how the revised Regulations, which took effect in 2016, will affect foundations' financial behavior. The revised Regulations conditionally allows private foundations to raise donations publicly after a period of sound operation. It would be interesting to see whether and how the private foundations change financially after they acquire the permission.

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